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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,317	05/28/2002	Mikkel Selder	003300-927	7288

21839 7590 10/18/2005

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EXAMINER

BEISNER, WILLIAM H

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/089,317	Applicant(s) SELDER, MIKKEL	
	Examiner William H. Beisner	Art Unit 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 10 and 20, use of the language “exhibit an optimal uptake of linseed oil” is indefinite. In view of this claim language, the metes and bounds of the claim cannot be clearly determined. Note if the language of the claim is such that a person of ordinary skill in the art could not interpret the metes and bounds of the claim so as to understand how to avoid infringement, a rejection of the claim under 35 U.S.C.112, second paragraph, would be appropriate. See *Morton Int'l, Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1470, 28 USPQ2d 1190, 1195 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 10 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Gillet (FR 397,786).

The reference of Gillet discloses a wood product that is dried and impregnated with only linseed oil. In the absence of further positively recited claim language to further distinguish the product of claims 10 and 20, the product produced by the method of the reference of Gillet is considered to meet the instant claim language "which exhibit an optimal uptake of linseed oil".

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-5, 9-15 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of prior art in view of Boulton (US 247,602) and Nelson (US 937,008).

Pages 1-2 of the instant specification disclose that it is known in the art to treat or waterproof cellulose-based products (i.e. wood) using a linseed oil composition that is exposed to the product using a “hot and cold process” (i.e. the product is treated in hot oil and then cold oil resulting in impregnation of the product with linseed oil).

While the admitted prior art discloses a two-step process involving hot and cold linseed oil, the instant claims differ by specifying that the hot oil treatment occurs at a temperature exceeding the boiling point of water and under a vacuum.

The reference of Boulton discloses that it is known in the art to dry or season a wood product to be impregnated with a composition by heating the product in the composition at a temperature above the boiling point of water and under a vacuum (See page 1, lines 47-102).

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to perform the hot oil treatment of the admitted prior art under the temperature and pressures conditions suggested by the reference of Boulton for the known and expected result of allowing a greater amount of moisture to be expelled from the timber less than can be extracted either by open air drying or open tank steeping.

Claim 1 further differs by reciting that the cold oil treatment occurs in the same vessel while simultaneously supplying cold oil while discharging the hot oil.

The reference of Neslon discloses that when performing a two-step process on a wood product for impregnation of a treatment solution involving hot and cold baths, it is known in the art to employ a single tank where the hot liquid is drawn off and is replaced by a cold liquid (See page 2, lines 47-63).

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In view of this teaching, it would have been obvious to one of ordinary skill in the art to employ a single tank for providing the hot and cold treatment for the known and expected result of providing an alternative means recognized in the art to achieve the same result. Note, use of a single tank would reduce equipment costs while allowing rapid change in the temperature of the liquid in the treatment tank.

With respect to claim 2, the reference of Boulton discloses that the temperature of the heat treatment step can be increased so as to accelerate the process (See page 1, lines 86-102). As a result, in the absence of a showing of criticality and/or unexpected results and based merely on the properties of the treatment solution (linseed oil) and the operating pressures of the autoclave, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the optimum treatment temperature.

With respect to the specific vacuum pressure of claims 3 and 11, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the optimum vacuum to employ while providing the required conditions for maximizing the removal of moisture from the product being treated.

With respect to the cold treatment solution temperature of claims 4, 12 and 13, while the admitted prior art and the reference of Nelson disclose a cooled bath or tank, these references do not disclose the specific range of claim 4. However, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the optimum cooling temperature based merely on the

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specific properties of the product and the treatment solution while providing the required conditions for impregnating the product with the solution.

With respect to the specific over pressure of claims 5, 14 and 15, both the references of Boulton and Nelson suggest the use of an overpressure when treating the product in a second treatment step separate from the drying step (See page 1, lines 92-101 of Nelson and page 2, lines 20-38 of Boulton). In the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the optimum over pressure valve while providing the required compression of vapors in the wood product and allow the treatment solution to penetrate the wood product.

With respect to the drying step of claims 9, 18 and 19, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art to allow further drying of the treated wood for the known and expected result of allowing the wood to dry at an environmental temperature and pressure prior to use of the wood product, as is conventional in the art.

With respect to claims 10 and 20, the resulting treated product of the method discussed above would result in a product that is the same as that recited in claims 10 and 20.

8. Claims 6-8, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of prior art in view of Boulton (US 247,602) and Nelson (US 937,008) taken further in view of Kraft Foods (GB 701,633).

The combination of the admitted prior art, Boulton and Nelson has been discussed above.

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Claims 6-8, 16 and 17 differ by reciting that the linseed oil is a processed linseed oil that has free tocopherol being less than about 100ppm.

The reference of GB 701,633 discloses that oils with low concentrations of tocopherol are more stable against rancidity and reversion (See page 1, lines 11-25, and page 12, lines 56-90).

In view of this teaching and in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a linseed oil with low concentrations of free tocopherol for the known and expected result of employing an oil that is stable against rancidity and reversion as suggested by the reference of GB 701,633.

9. Claims 1-5, 9-15 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson (US 937,008) in view of either Gillet (FR 397,786) or Hungbau (WO 94/11167). and further in view of Boulton (US 247,602).

The reference of Nelson discloses a method for treating a cellulose product with an impregnating composition that includes exposing the product to heated composition and subsequently exposing the product to cooled composition (See pages 1-2).

With respect to claim 1, while the reference Nelson discloses that the process can be applied to any preservative or nonpreservative liquid, the reference fails to specifically recite the use of linseed oil.

The reference of Gillet and Hungbau both disclose that linseed oil is a notoriously well known treatment composition in the art of wood preservation.

In view of either of these disclosures, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ linseed oil in the process of the reference of Neslon for the known and expected result of treating the wood product with a well known composition (linseed oil) while providing the deep penetration of the composition provided by the process of the reference of Nelson.

Claim 1 further differs by specifying that the hot oil treatment occurs at a temperature exceeding the boiling point of water and under a vacuum.

The reference of Boulton discloses that it is known in the art to dry or season a wood product to be impregnated with a composition by heating the product in the composition at a temperature above the boiling point of water and under a vacuum (See page 1, lines 47-102).

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to perform the hot oil treatment of the admitted prior art under the temperature and pressures conditions suggested by the reference of Boulton for the known and expected result of allowing a greater amount of moisture to be expelled from the timber less than can be extracted either by open air drying or open tank steeping.

Claim 1 further differs by reciting that the cold oil treatment occurs in the same vessel while simultaneously supplying cold oil while discharging the hot oil.

The reference of Neslon discloses that when performing a two-step process on a wood product for impregnation of a treatment solution involving hot and cold baths, it is known in the art to employ a single tank where the hot liquid is drawn off and is replaced by a cold liquid (See page 2, lines 47-63).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to employ a single tank for providing the hot and cold treatment for the known and expected result of providing an alternative means recognized in the art to achieve the same result. Note, use of a single tank would reduce equipment costs while allowing rapid change in the temperature of the liquid in the treatment tank.

With respect to claim 2, the reference of Boulton discloses that the temperature of the heat treatment step can be increased so as to accelerate the process (See page 1, lines 86-102). As a result, in the absence of a showing of criticality and/or unexpected results and based merely on the properties of the treatment solution (linseed oil) and the operating pressures of the autoclave, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the optimum treatment temperature.

With respect to the specific vacuum pressure of claims 3 and 11; in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the optimum vacuum to employ while providing the required conditions for maximizing the removal of moisture from the product being treated.

With respect to the cold treatment solution temperature of claims 4, 12 and 13, while the reference of Nelson disclose a cooled bath or tank, these references do not disclose the specific range of claim 4. However, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the optimum cooling temperature based merely on the specific properties of the

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product and the treatment solution while providing the required conditions for impregnating the product with the solution.

With respect to the specific over pressure of claims 5, 14 and 15, both the references of Boulton and Nelson suggest the use of an overpressure when treating the product in a second treatment step separate from the drying step (See page 1, lines 92-101 of Nelson and page 2, lines 20-38 of Boulton). In the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the optimum over pressure valve while providing the required compression of vapors in the wood product and allow the treatment solution to penetrate the wood product.

With respect to the drying step of claims 9, 18 and 19, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art to allow further drying of the treated wood for the known and expected result of allowing the wood to dry at an environmental temperature and pressure prior to use of the wood product, as is conventional in the art.

With respect to claims 10 and 20, the resulting treated product of the method discussed above would result in a product that is the same as that recited in claims 10 and 20.

10. Claims 6-8, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson (US 937,008) in view of either Gillet (FR 397,786) or Hungbau (WO 94/11167) and Boulton (US 247,602) and taken further in view of Kraft Foods (GB 701,633).

The combination of Nelson with either Gillet or Hungbau and Boulton and has been discussed above.

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Claims 6-8, 16 and 17 differ by reciting that the linseed oil is a processed linseed oil that has free tocopherol being less than about 100ppm.

The reference of GB 701,633 discloses that oils with low concentrations of tocopherol are more stable against rancidity and reversion (See page 1, lines 11-25, and page 12, lines 56-90).

In view of this teaching and in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a linseed oil with low concentrations of free tocopherol for the known and expected result of employing an oil that is stable against rancidity and reversion as suggested by the reference of GB 701,633.

Response to Arguments

11. With respect to the rejection of claims 10 and 20 under 35 USC 102 over the reference of Rice, Applicant's amendments to the claims and associated comments (See page 9 of the response dated 8/8/05) are persuasive to overcome the rejection of record, however, new grounds of rejection have been made in view of the references of Nelson (US 937,008), Gillet (FR 397,786) or Hungbau (WO 94/11167), Boulton (US 247,602) and Applicant's admitted prior art.

12. With respect to the rejection of claims 10 and 20 under 35 USC 102 over the reference of McDonald, Applicant's amendments to the claims and associated comments (See page 9 of the response dated 8/8/05) are persuasive to overcome the rejection of record, however, new grounds of rejection have been made in view of the references of Nelson (US 937,008), Gillet (FR 397,786) or Hungbau (WO 94/11167), Boulton (US 247,602) and Applicant's admitted prior art.

13. With respect to the rejection of claims 1-5, 9-15 and 18-20 under 35 USC 103 over the reference of McDonald, Applicant's amendments to the claims and associated comments (See page 10 of the response dated 8/8/05) are persuasive to overcome the rejection of record, however, new grounds of rejection have been made in view of the references of Nelson (US 937,008), Gillet (FR 397,786) or Hungbau (WO 94/11167), Boulton (US 247,602) and Applicant's admitted prior art.

14. With respect to the rejection of claims 6-8, 16 and 17 under 35 USC 103 over the combination of the references of McDonald and Kraft Foods, Applicant's amendments to the claims and associated comments (See pages 10-11 of the response dated 8/8/05) are persuasive to overcome the rejection of record, however, new grounds of rejection have been made in view of the references of Nelson (US 937,008), Gillet (FR 397,786) or Hungbau (WO 94/11167), Boulton (US 247,602) and Applicant's admitted prior art.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

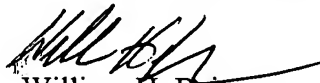
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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 571-272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


William H. Beisner
Primary Examiner
Art Unit 1744

WHB